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Final Draft
sent with
letter to him
dated 7/19/15

STATEMENT OF DR. SHERMAN KAPLAN

My name is Dr. Sherman Kaplan. I am Chairman of the Department of Medicine, Mt. Sinai Hospital, Miami Beach, Florida, and Assistant Clinical Professor of Medicine at the University of Miami Medical School. I am a specialist, certified by the American Board of Internal Medicine and a Fellow of the American College of Physicians. I attended medical school at the University of Louisville. After completing internship and residency training at Michael Reese Hospital and Cook County Hospital in Chicago, I taught at the Cook County Post-Graduate School of Medicine, the Chicago Medical School, and participated in the running of a teaching department of the Cook County Hospital. For the past thirteen and a half years I have practiced in Miami Beach and at the present time I am engaged both in teaching house staff officers at the intern and resident level and in the private practice of medicine.

My training and practice have been devoted principally to the treatment of diseases of the heart and vascular system. Practicing in Miami Beach, I have had a unique opportunity to observe and treat a great number of people with heart and cardiovascular disease coming from all parts of the United States and many foreign countries simply because of the fact that I am in an area where the temperature is warm and the climate congenial for people with this type of disease. During the past thirteen and a half years there have passed through my practice not less than 2,500 individuals with conditions relating to acute coronary occlusion and coronary artery insufficiency. These people have come from various and diverse backgrounds and they are as

Insert: Dr. Sherman has had patients from all over the U.S. and Canada who come to his practice

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varied a group as can be found in any usual human population. From observing these patients and collecting information about all aspects of their histories and life patterns I have reached some conclusions relative to the background and development of coronary artery disease which I would like to communicate to you.

I would like to approach from a clinical viewpoint the question whether cigarette smoking results in deleterious effects on the cardiovascular system leading to coronary artery disease and to review critically the notion that smoking may be responsible for some large number of deaths resulting from the effects of this disease. I would also like to review briefly established causative factors of vascular disease.

First, let me point out that a great many cases of coronary disease are traceable to certain definite disease circumstances. Diabetes, which to most people simply means a disorder in the body's handling of sugar, is known by physicians to be an important contributing factor in various types of vascular disorders. The circulatory difficulties which arise from this disorder may lead to a group of complications, including marked decrease of blood flow in the coronary artery. Thus we find that the incidence of coronary occlusion in the diabetic is considerably in excess of that in the non-diabetic.

A second disease circumstance predisposing to vascular disease is one involving the abnormal handling of ingested fats. It is called "hyperlipemia" and is characterized by a fatty or milky appearance to the blood serum. This condition is hereditary

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and results in marked deposits of fat and calcium material in the arteries with premature death due to vascular disease involving, in the main, the coronary artery.

To these recognized disease circumstances we can add the effect of the apparent inheritance pattern in heart disease. When one interrogates a patient with coronary artery disease about his family history, he is impressed by the fact that the patient usually reveals in his genealogy an uncommonly high incidence of vascular disease not only among his siblings but in his parents and grandparents on one or both sides of the family. The frequency with which this type of history occurs presents the unavoidable conclusion that there is some hereditary abnormality involved in the production of vascular disease, which includes not only coronary artery disease, but hypertension and stroke as well. This abnormality is present at the very moment of conception and its presentation as some form of vascular disease depends only on the passage of the proper interval of time.

Even more intriguing is the contribution of the factor of sex hormones to the integrity of the vascular system. It is a well-established fact that the menstruating female is uniquely protected against coronary occlusion. In contrast, in the post-menopausal female in whom ovarian function has decreased or ceased, there is now a sharp rise in the incidence of coronary occlusion, so that the incidence among these women approaches that of their male counterparts. Another interesting fact is that when the ovaries of a young menstruating female are removed, the incidence of coronary artery disease in such females abruptly rises to a

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rate paralleling that in the male or the post-menopausal female.

The importance of sex hormones is further borne out by the observation that males in whom certain types of liver damage occurs - such as in the chronic alcoholic with cirrhosis of the liver - the deactivation of female hormone accomplished by the normal liver is absent and he exhibits certain feminizing changes. Such men are found to have a surprising freedom from coronary artery disease similar to that in the menstruating young female.

A particularly pertinent subject for purposes of this discussion is the well known effects of stress upon the cardiovascular system. It has been well documented for some time from observations in laboratory animals that in circumstances of increasing tensions or sudden stressful stimuli there is a response in the function of various endocrine glands, which results in marked alterations in cardiac output, heart rate, serum cholesterol level and variations from the normal blood pressure. Clinical studies have extended these observations to human beings in situations of stress.

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Some years ago observations were made on a group of accountants in San Francisco. The group was evaluated first in the month of September with respect to serum cholesterol levels, and blood clotting activity. The same group was then re-evaluated during March and April. Under the stresses of the tax season a striking change was found to have occurred in all of the factors studied. This group which in September had appeared to be essentially normal in respect to cardiovascular function showed under stress the disturbances which are thought to favor the development of

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While cigarette smoking can be related to cardiovascular disease statistically, it can be related statistically without being the causative factor. (These were Mr. Jacob's general words for winding up this paragraph.)

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coronary artery disease and coronary occlusion.

These studies have been extended and similar results found by comparing college students during the mid-semester and during final exam week. Striking differences are seen in the rate of coronary occlusion in the overworked and pressured general practitioner of medicine as compared to the pathologist or dermatologist.

How does cigarette smoking fit into this pattern? ~~It~~ In my opinion, it is simply an easily visualized or discoverable trait which is very likely to be part of the behavior pattern of an individual reacting to stress. It does not cause, contribute to or exacerbate the cardiovascular abnormalities which appear to contribute to the development of heart disease and heart attacks. In this connection, cigarette smoking is analagous to nail biting or hair plucking which some individuals resort to under situations of increased tension or stress. It is interesting that very often the so-called chain smoker may actually consume very little tobacco. Like the nail biter, who is unaware of biting his nails, the chain smoker is not aware that he has reached for and lighted a cigarette and he may snuff it out after one or two puffs. So it is conceivable that a statistical relationship between cigarette smoking and cardiovascular disease might be found without cig. smoking being the causative factor.

In normal humans, smoking produces no change in blood flow in the coronary artery. X-ray studies of the coronary arteries before and after smoking show no change in the vessel caliber. With continued smoking there is no change from the resting level of coronary flow in both normal persons and those with coronary artery disease.

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The electrocardiogram in both normal and heart patients shows no significant change and frequently none at all in the presence of smoking.

Studies relating to the clotting of the blood show no effect from tobacco or nicotine.

To conclude these remarks, I wish to comment briefly on the idea which has been advanced that steps taken to discourage cigarette smoking may reduce the number of deaths from cardiovascular disease. I have tried to point out that evidence to establish a connection between smoking and coronary artery disease - the most common form of heart disease - is lacking. The recent popularity of the theory that cholesterol in the diet was a factor favoring the development of coronary disease gave rise to a big business in safflower oil and other forms of unsaturated fats. The emphasis on obesity as a factor has led many people to undertake crash diets. Theories concerning the type of behavior which is best calculated to afford an individual protection from heart disease have been advanced from decade to decade and have enjoyed varying degrees of popularity. Just as the Public Health Service has wisely refrained from endorsing any of these theories in the past, so it would also seem wise to avoid expressions which appear to endorse the theory that cigarette smoking is implicated in coronary artery disease in the present state of our knowledge. Far more pertinent would be an undaunted pursuit of the missing links in the familial transmission of vascular disease and fat metabolism, and a carefully planned educational program designed to champion an even and moderate way of life.

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